CURRENT CONDITIONS

TERRESTRIAL VEGETATION

Of the 8,846 acres of Forest Service ownership within the analysis area, approximately 2,600 acres are plantations and 6,200 acres are natural stands. Of the 2,375 acres of City of Corvallis ownership within the analysis area, approximately 600 acres are plantations and 1,700 are natural stands (Map 7: Vegetation Age).

These managed stands were established through the practice of clearcutting, broadcast burning and replanting with Douglas-fir. These single-story managed stands have approximately 200 to 300 trees per acre, and generally lack species diversity, coarse woody debris and snags.

Table 1 – Stand Age

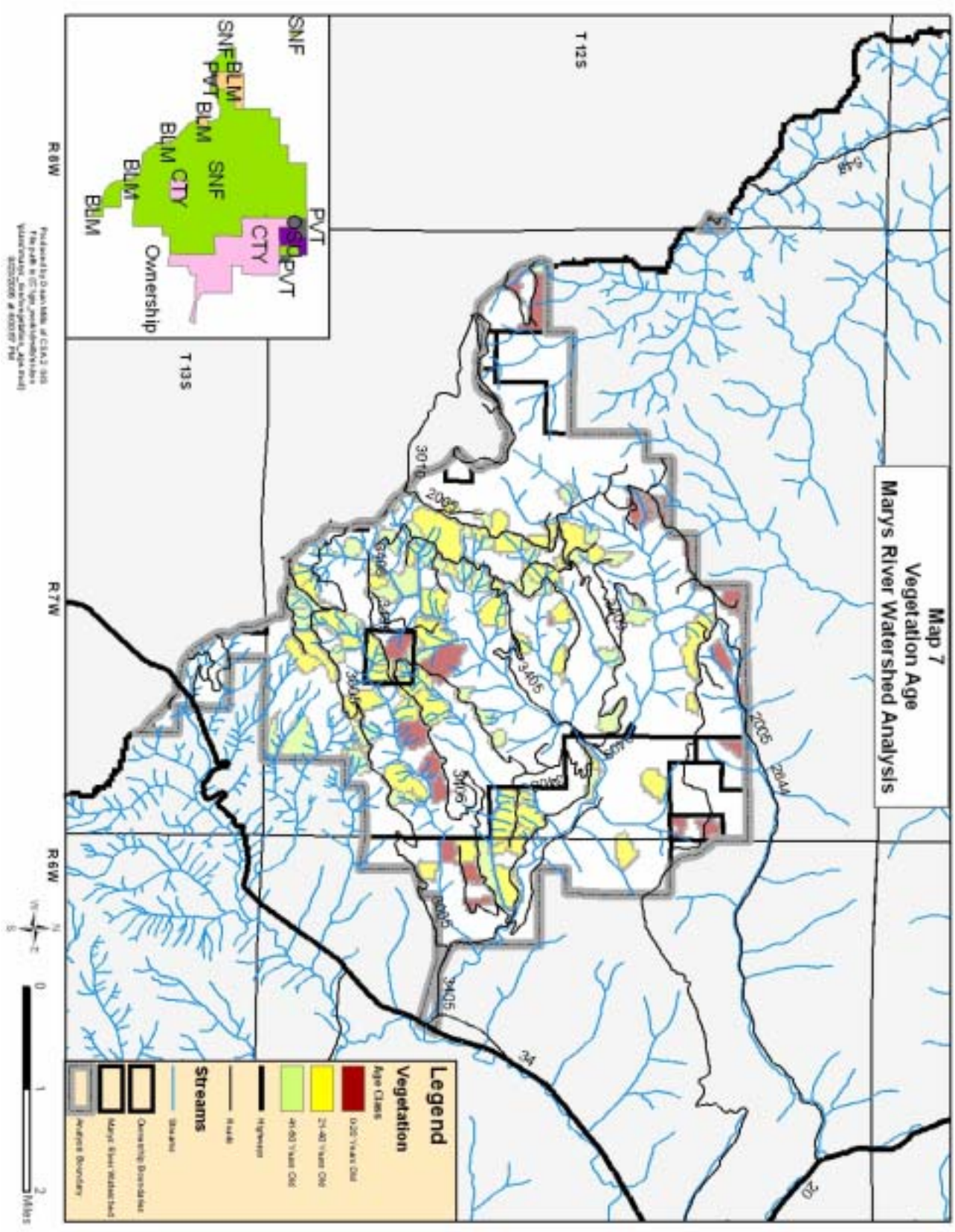
Ownership	Age Group 0 to 20	Age Group 21 to 40	Age Group 41 to 60	Natural Stands	Other	Total
Forest Service	464	1126	958	6,188	110	8,846
City of Corvallis	93	415	77	1,790	--	2,219

All except 80 acres of National Forest system lands have been allocated as Late-Successional Reserve (LSR) by the Northwest Forest Plan (1994) within the Analysis area. The remaining 80 acres have been allocated to Matrix. The Late-Successional Reserve Assessment, Oregon Coast Province, Southern Portion (RO267, RO268) (1997) was developed to help facilitate implementation of appropriate management activities for the LSR and assure that these activities meet the LSR standards and guidelines and further LSR objectives.

The LSR assessment process identified the need to secure the "best" habitat areas first before devoting limited funding and resources to more degraded areas. This strategy aligns with the aquatic conservation and restoration strategy objectives and priorities developed by the Northwest Forest Plan.

Based on the current condition and the amount and distribution of remaining late-successional habitat, the analysis area was identified as a Corridor LSR Zone that serves primarily to connect the analysis area to adjacent LSRs to the North (Hebo) and East (Cascades).

The Corridor LSR Zone was further stratified into Landscape Cells. Prioritization of Landscape Cells for treatment was based on securing the best habitat first, by blocking up large patches and connecting isolated patches. The analysis area was identified as "Priority 1 = Landscape Cell #1 – Mature".

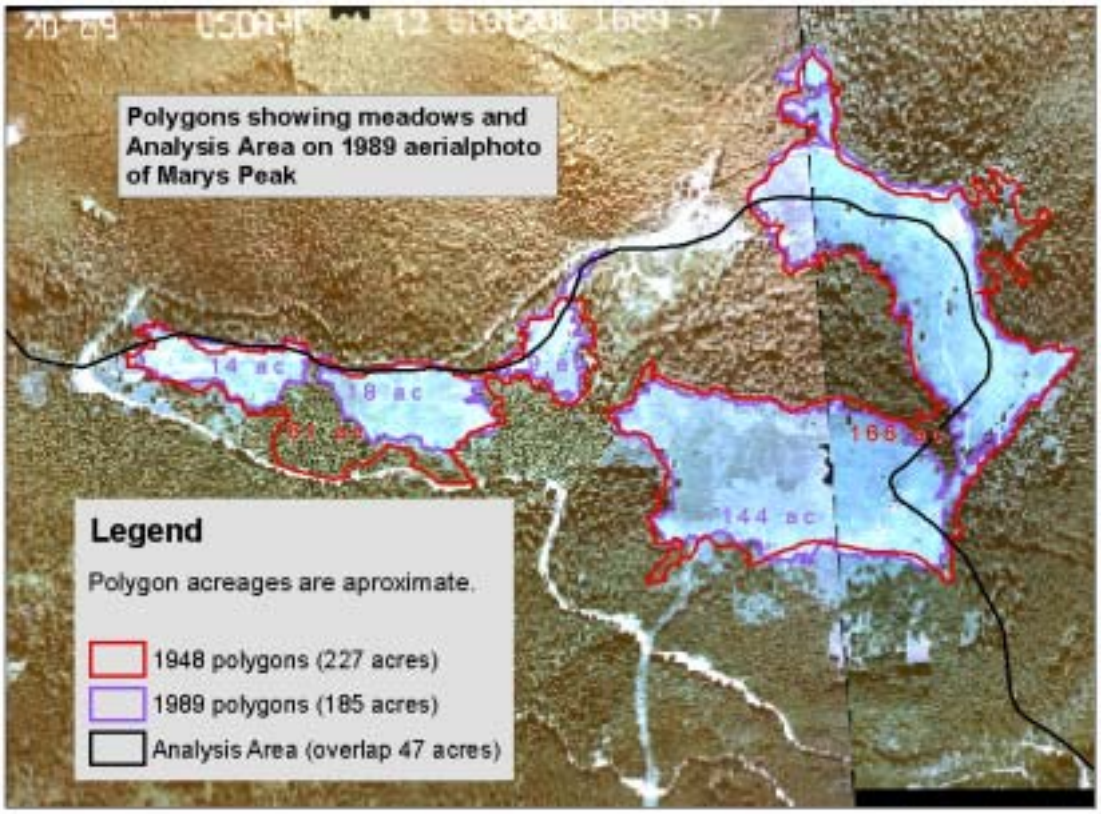

Map 7
Vegetation Age
Marys River Watershed Analysis
Ownership
SNF
BLM
PVT
CTY
OSU
Legend
Vegetation
Age Class
Streams
Highways
Roads
Ownership Boundary
Marys River Watershed
Analysis Boundary
T 12S
T 13S
R 6W
R 7W
R 6W
0
1
2
Miles

MARYS PEAK MEADOW COMPLEX

Marys Peak Meadow Complex rises further than all other ridges in the Coast Range. It and other high ridges rise into the transient snow zone where topography controls allow snow to accumulate and persist in the face of wind and sun. Snow regime determines the distribution and compositions of the grassy bald communities. It also controls patterns of tree encroachment (Magee 1984).

To date, no evidence has been offered that current meadows have been occupied by forest under the current climate, though it is likely that the meadows occasionally burned. Magee (1984) investigated tree invasion patterns in the grassy balds of Marys Peak. She speculated that infrequent fires on the summit could maintain the bald. However, she documented conditions favoring encroachment as they varied among the community types. Magee found three major requirements for invasion: safe sites for seedling establishment, heavy seed years, and suitable weather patterns. Ground disturbance along roads and the old rope-tow have provided "safe sites" for tree establishment. Warm dry climatic periods appear to favor tree encroachment even in undisturbed meadows.

Figure 2: Aerial photos of the Marys Peak Meadow Complex



Aerial photos from 1948 were compared to 1989 photos. Table 2 provides acre figures that are approximate, due to distortion and geo-registration limitations. Most applicable to the Marys River watershed assessment are changes in the largest meadow, the east meadow.

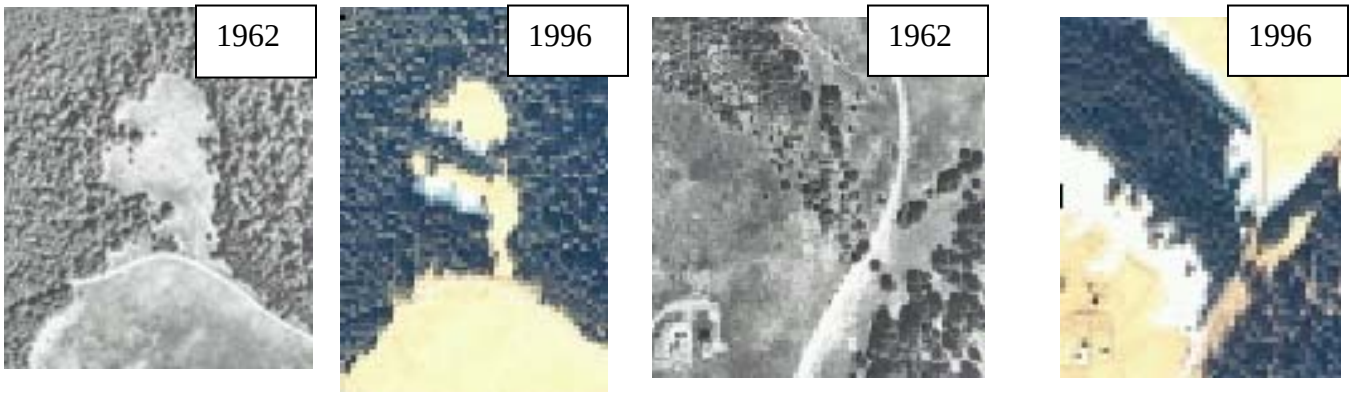
Table 2: Patterns of change in Marys Peak Meadow from 1948 to 1989

	1948 acres	1989 acres	% change
East meadow complex	166	144	-13%
West meadow complex	61	41	-32%
Total "open meadow"	227	185	-18%

Much of the loss to the west meadow complex appears to be from establishment of a young Douglas fir stand below 3,500 feet on a southern aspect. Most of the change in the east meadow complex is due to encroachment by noble fir, above 3,500 feet.

The change averages between 0.5 and 1 acre per year. However, it does not appear as a slow, steady invasion by trees. Aerial photos from intervening years support Magee's results that suggest waves of establishment corresponding to favorable weather coincident with good seed years. The photos illustrate slow infilling behind pioneering trees.

Figure 3: Aerial photos of intervening years from 1962 and 1996



No information is available on potential recovery of the portion of the east meadow where the annual Shriner event took place in the Trek meadow. The annual Shriner event ended in the mid-1980's. Snow (1984) had speculated that grasses were more abundant than they would have been in that meadow because of human disturbance.

Noxious weeds are not currently found in the meadows. While some non-natives such as sheep sorrel (*Rumex acetosella*) are present, there are not aggressive species that would significantly alter the communities at the present; however, invasion by non-natives such as Scot's Broom, false brome, or knapweeds is a continuing threat that requires periodic survey.

Viola adunca, important to the potential re-introduction of a threatened silverspot butterfly (*Speyeria zerene bremneri*) population on the Peak, is present in the red fescue and iris communities. Although the inland valley form of the silver spot is extinct in Oregon, habitat on Marys Peak that once supported the butterfly is similar to habitat for a population present in the Olympic mountains in Washington.

The silverspot butterfly population on Marys Peak was last observed in the late 1970's. An unsuccessful re-introduction was attempted in the 1980's with butterflies of a coastal origin. Recommendations on establishing a population on the Peak with the inland form from the Olympic mountain population have been recorded for over 15 years.

INVASIVE PLANT SPECIES

A number of non-native plants are known to occur in the Marys Peak area and are likely represented in the watershed (Map 8: Invasive Plant Locations Based on Partial Surveys). The degree to which management efforts should be directed at control and possibly eradication of these species varies greatly. Creeping bentgrass (*Agrostis alba* var. *alba*), colonial bentgrass (*Agrostis tenuis*), oxeye daisy (*Chrysanthemum leucanthemum*), cats-ear (*Hypochaeris radicata*) and sheep sorrel (*Rumex acetosella*) have naturalized and are very prevalent in the Watershed. Control or eradication of these species may be warranted in situations where their presence jeopardizes resource values and the area under consideration is small (< 1 acre) but treatment of larger areas would likely be costly and ineffective. Some invasive species may be more prevalent elsewhere, but still at relatively low levels within the watershed. Efforts to control this group, including meadow knapweed (*Centaurea pratensis*), Himalaya blackberry (*Rubus discolor*), Scot's Broom (*Cytisus scoparius*) and Dalmatian toadflax (*Linaria dalmatica*) should be made whenever possible. The highest priority for treatment is "new invaders", species that have arrived in the area recently and are still relatively limited in occurrence such as false brome *(Brachypodium sylvaticum*). This species was first documented in the watershed in 2004. A partial inventory in 2005 found it to be more prevalent than previously thought, suggesting that it may have gone undetected for a number of years. The survey also found that it is primarily restricted to road shoulders where the forest canopy is relatively open and the soil has been disturbed in the recent past, however, in areas outside the Watershed where this grass has established, it has aggressively colonized forested stands in undisturbed soil. Without intervention, the potential exists for native forest understory communities to be converted to false brome.

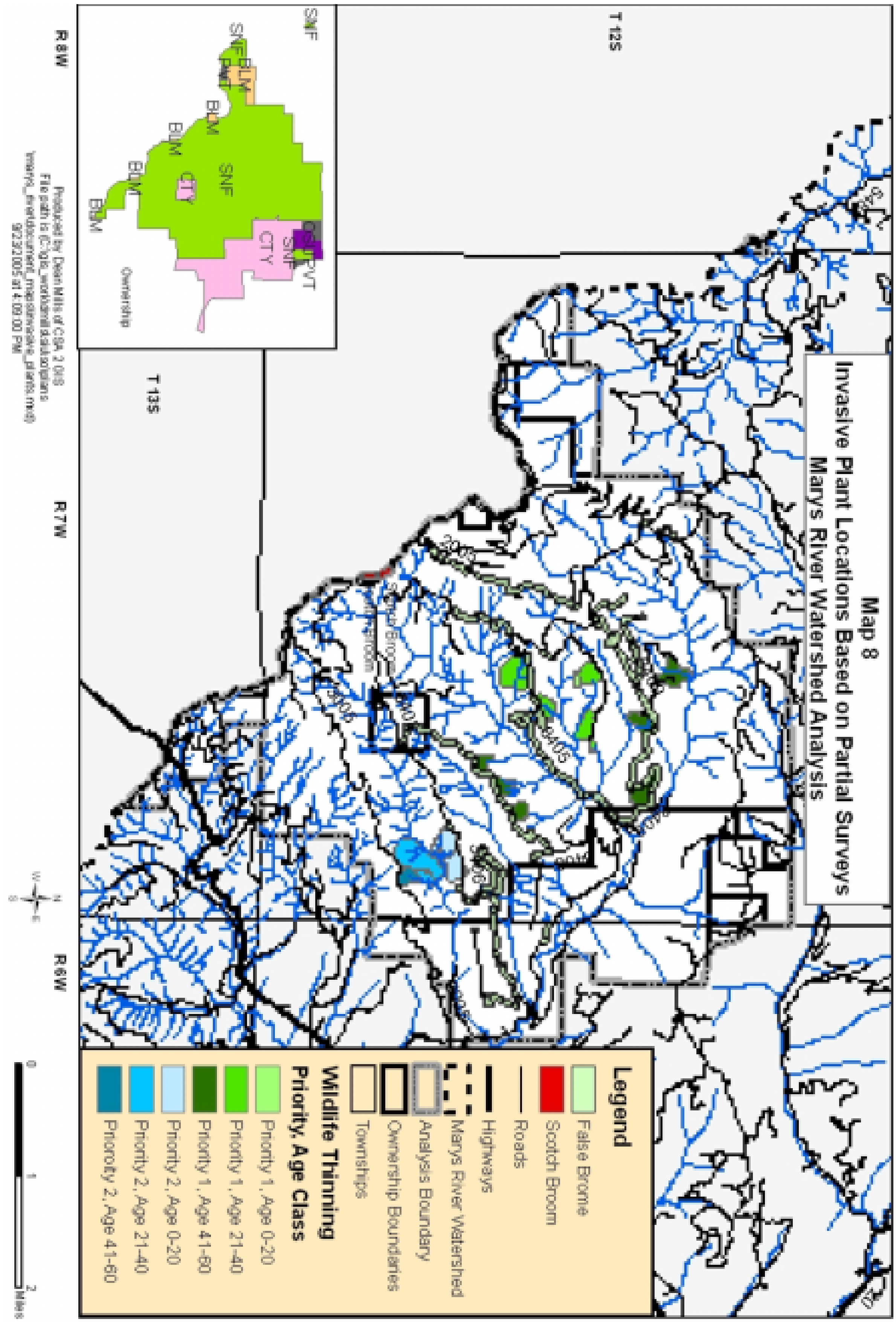
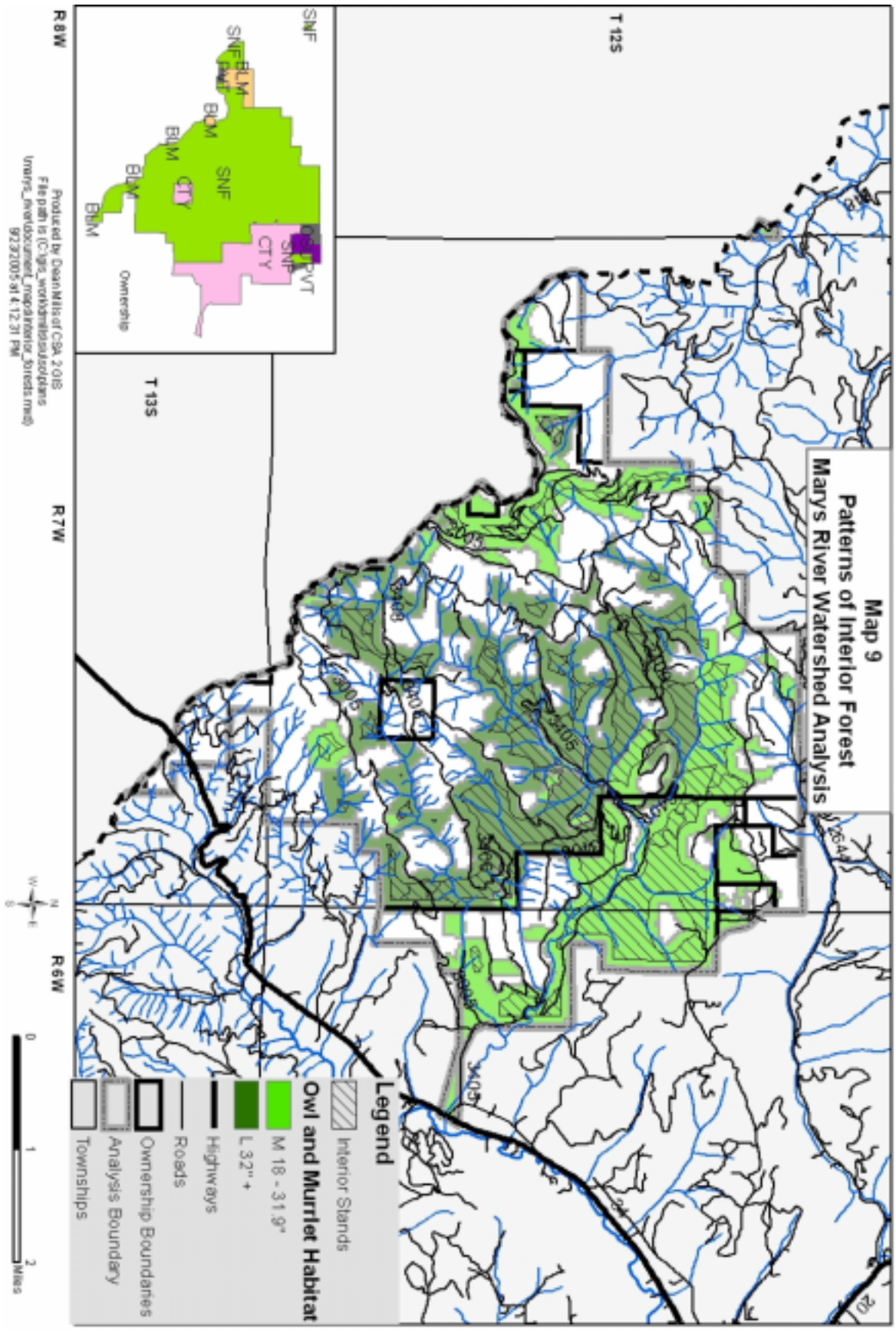

Map 8
Invasive Plant Locations Based on Partial Surveys
Marys River Watershed Analysis
Legend
False Brome
Scotch Broom
Roads
Highways
Marys River Watershed
Analysis Boundary
Ownership Boundaries
Townships
Wildlife Thinning
Priority, Age Class
Priority 1, Age 0-20
Priority 1, Age 21-40
Priority 1, Age 41-60
Priority 2, Age 0-20
Priority 2, Age 21-40
Priority 2, Age 41-60
T 12S
T 13S
R 8W
R 7W
R 6W
Ownership
SNF
BLM
CTY
PVT
Miles

Table 3: Listing of known invasive plants in Marys River Watershed

Common Name	Scientific Name	OR. Dept. of Agriculture Designation
creeping bentgrass	*Agrostis alba var. alba*	None
colonial bentgrass	*Agrostis tenuis*	None
false brome	*Brachpodium sylvaticum*	Noxious
butterfly bush	*Buddleja davidii*	Noxious
spotted knapweed	*Centaurea maculosa*	Noxious
meadow knapweed	*Centaurea pratensis*	Noxious
yellow starthistle	*Centaurea solstitialis*	Noxious
oxeye daisy	*Chrysanthemum leucanthemum*	None
Canada thistle	*Cirsium arvense*	Noxious
bull thistle	*Cirsium vulgare*	None
clematis	*Clematis vitalba*	Noxious
Scot's broom	*Cytisus scoparius*	Noxious
Portuguese broom	*Cytisus striatus*	Noxious
orchardgrass	*Dactylis glomerata*	None
English ivy	*Hedera helix*	Noxious
cats-ear	*Hypochaeris radicata*	None
English holly	*Ilex aquafolium*	None
policeman's helmet	*Impatiens glandulifera*	Noxious
everlasting pea	*Lathyrus latifolius*	None
Dalmatian toadflax	*Linaria dalmatica*	Noxious
reed canarygrass	*Phalaris arundinacea*	Noxious
Himalayan blackberry	*Rubus discolor*	Noxious
evergreen blackberry	*Rubus laciniatus*	Noxious
Sheep sorrel	*Rumex acetosella*	None
Tansy ragwort	*Senecio jacobaea*	Noxious
Gorse	*Ulex europaeus*	Noxious

TERRESTRIAL WILDLIFE SPECIES AND HABITATS

Interior mature conifer habitats (>500' from the edge of mature stands) are critical to certain species sensitive to moisture, light, and ambient air movement for either their long term existence in one area or for mobility across the landscape for dispersal and genetic exchange with other individuals. Acres of interior forest are a gross measure of the degree to which the mature conifer habitats support interior species. Interior forest habitat in the analysis area is 2,531 acres or 28.6 percent of the watershed. This can be used as a benchmark for interior forest development over time and is not intended to be an absolute measure of the watersheds current health. Factors other than gross acres, such as patch size, shape of interior forest patches, and location all play a part in the overall value of interior forests to species that use such habitats. Map 9 shows the interior forest patterns.


Map 9
Patterns of Interior Forest
Marys River Watershed Analysis
T 12S
T 13S
R 8W
R 7W
R 6W
Legend
Interior Stands
Owl and Murrlet Habitat
M 18 - 31.9"
L 32" +
Highways
Roads
Ownership Boundaries
Analysis Boundary
Townships
Ownership
SNF
BLM
PVT
CTY
Miles

Currently the analysis area is approximately 39 percent (4,730 acres) late successional conifer forest, which is habitat for species such as the northern spotted owl, pileated woodpecker, marbled murrelet, and flying squirrel. Loss of these habitats in the watershed is largely attributable to timber harvest, however historically the forests in the Marys River watershed as well as all forests in the Coast Range of Oregon experienced catastrophic stand replacing fires and the influences of winter storm events.

There is one bald eagle nest site in the watershed that is not on Siuslaw National Forest land as well as 9 northern spotted owl nests and 6 marbled murrelet occupied sites, with 6 and 5 on Siuslaw National Forest land, respectively.

Species for which there exists the most information include northern spotted owls, marbled murrelets, Roosevelt elk, and black-tailed deer. However, many more species of birds (warblers, finches, flycatchers, hawks, thrushes, and hummingbirds), reptiles and amphibians (torrent salamander, western garter snake, and Northern alligator lizard) and mammals (big brown bat, river otter, raccoon, and brush rabbit) would all be expected to reside in the watershed.

A variety of wildlife habitats other than late successional conifer forest can be found in the watershed. Special or unique habitats include cliffs, talus slopes, caves, rock faces, lakes, marshes and sloughs. There is one small reservoir on City of Corvallis land within the watershed. It is 6 acres in size and would be expected to attract a variety of species such as waterfowl during migration, feeding insectivorous birds such as swallows and swifts, as well as wading and diving aquatic feeding birds such as great blue heron and kingfisher. Other unique habitats are likely within the watershed; especially those produced and maintained by other species (e.g. beaver). Any occurrence of seasonal or yearlong high water or sub-irrigated drainages is attractive to many species of wildlife that require such at least seasonally and would include many reptiles and amphibians for both reproduction and feeding. There are no other unique habitats as listed above that are known to occur within the Marys River watershed.

BIG GAME SPECIES AND HABITAT

Big game species (elk and deer) do best in landscapes that offer a variety of habitats. Naturally occurring or man-made openings and cover areas serve to meet the yearlong nutritional and security needs of deer and elk. The Oregon Department of Fish and Wildlife (ODFW) monitors big game trends in number and specific demographic parameters through harvest levels and post hunting season counts. The analysis area is in the Alsea Management Unit for big game. The current Roosevelt elk population Management Objective for the Alsea Unit is 6,500 animals with a 2004 population estimate of 5,500.

Blacktail deer numbers are declining in the Alsea Management Unit as they are throughout western Oregon. The actual number of deer is difficult to determine but the number of hunting tags issued in recent years is an indication of the reduced number of deer. In 1999 there were 5,800 tags issued, but by 2001 only 4,000 antlerless tags were available and in 2003 only 400 were made available. This decline is believed to be due in part to disease (hair loss syndrome), interaction between an increasing elk herd using more of the available range, increased predation from cougars, and lower carrying capacity due to reduced harvest on federal lands and intensive forest management practices on private lands.

THREATENED AND ENDANGERED SPECIES AND HABITAT

Bald Eagle

One bald eagle nest is located on City of Corvallis lands. It has been active since 1996 and has produced a total of 15 young up to and including the 2004 nesting season. It is in mature forest habitat that provides near optimum conditions for nest success.

Northern Spotted Owls

The analysis area contains approximately 4,730 acres of suitable habitat for northern spotted owls. Northern spotted owls reside in late successional conifer stands of multi-storied canopies and mixed tree species that provide habitats for preferred prey species including the northern flying squirrel, red tree vole and bushytailed wood rat. Large snags that contain cavities for nesting are also an important habitat feature of suitable habitat for northern spotted owls. There are 6 northern spotted owl nest sites in the watershed on Forest Service lands. These represent the number of sites that have had some use by owls over the past 15 years, so not all the sites are active with pairs in any one year. One measure of the health of each site is the percent of mature conifer within the home range (1.5 mile radius circle around the nest site) of any one pair. Table 4 provides the acres for each owl pair on Siuslaw National Forest lands. Suitable habitat acres include only Siuslaw National Forest land.

Table 4: Percent of Mature Conifer within the Northern Spotted Owls Home Range

Owl Pair Area Number	Siuslaw NF, Suitable Habitat w/in 1.5 miles (acres)	Percent Suitable Habitat on Siuslaw NF	Acres of non-federal ownership within 1.5 mile circle
2090041*	2,617	58%	20%
1845-6	727	16%	54%
2638-48	1,565	35%	26%
3364-115	1,226	27%	48%
4556-121*	2,267	50%	29%
9063-131	1,611	36%	38%

* - Designates active pairs in the 2004 nesting season.

Barred owls have moved into the Pacific Northwest over the last decade and are a primary threat to the Northern Spotted Owl. The species was first documented in the watershed in the mid-1990's, and has since expanded. They appear to have displaced northern spotted owls from at least one of the nest sites on National Forest land, according to monitoring data. They are closely related to northern spotted owls; however, they are more aggressive. Barred owls compete with, displace, and interbreed with northern spotted owls. The barred owls are adapted to a wide range of forested habitats, including the same late successional habitat as the northern spotted owls. The barred owls are an emerging threat to northern spotted owls throughout their range.

Marbled Murrelets

Marbled Murrelets also reside in late successional conifer stands but use such habitat strictly for nesting and forage on the ocean. Marbled murrelets do best in large old growth trees, and because of their nesting habits, require a flat secure nesting platform in the canopy to lay an egg. Nesting platforms are often the result of moss growth on large horizontal limbs, debris accumulation, or clumps of mistletoe. One additional habitat feature that is important to marbled murrelets is the availability of interior mature conifer habitat. The amount and shape of interior habitat is important due to its ability to provide nesting areas secure from avian predators such as ravens, crows, and jays. Table 5 provides the acres for each marbled murrelet occupied site on Siuslaw National Forest lands.

Table 5: Suitable Acres Within 0.5 miles of Marbled Murrelet Nest Site

Murrelet Master Site Number (MSNO)	Siuslaw NF, Suitable Habitat within 0.5 miles (acres)	Percent Suitable Habitat
1111	350	70%
1112	349	70%
1113	431	86%
1114	360	72%
1115	334	67%

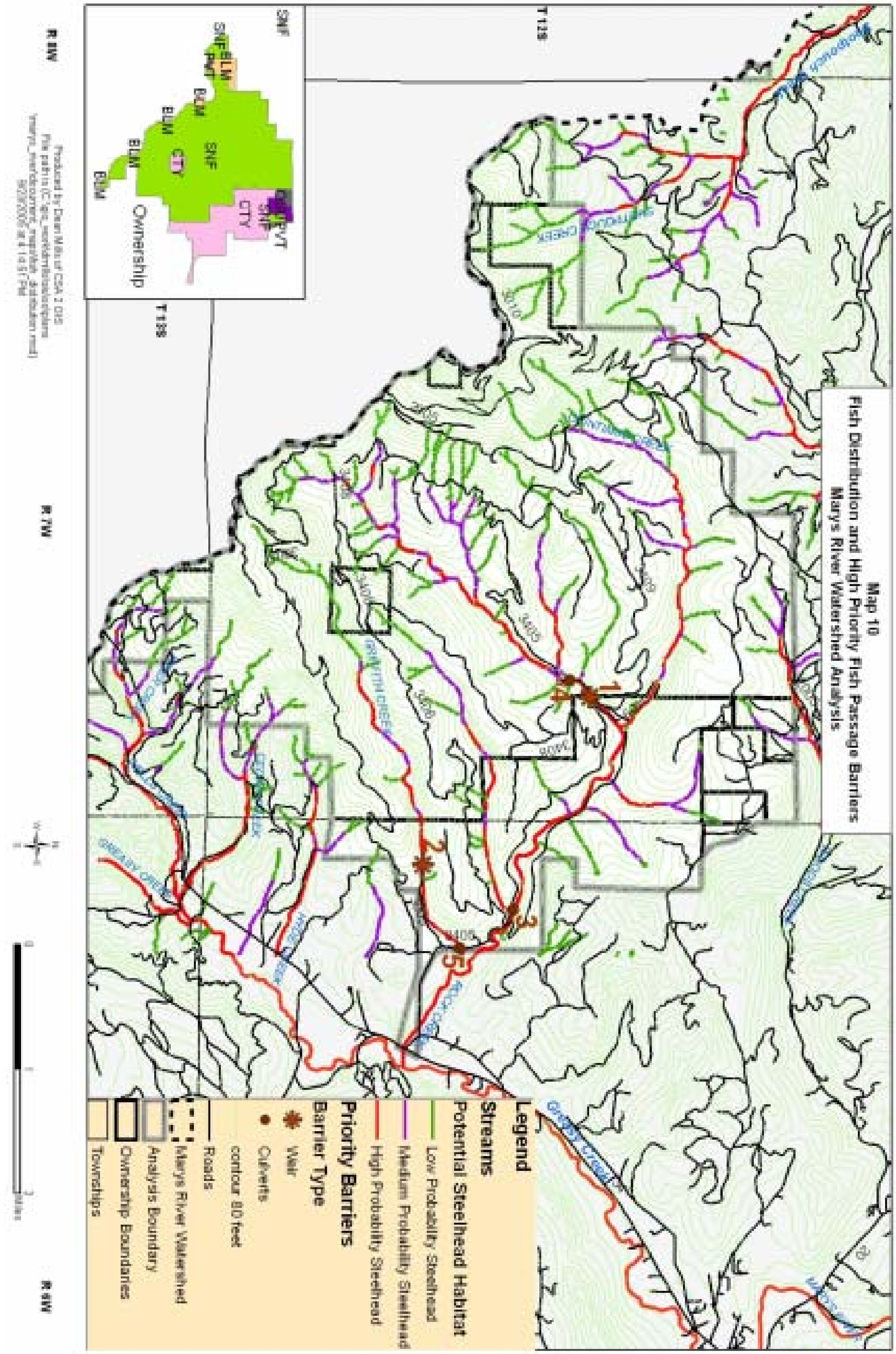
AQUATIC HABITAT

Aquatic habitat in Greasy Creek below the confluence with Rock Creek is considered degraded or in a declining condition (ODFW 1992, BLM 1997). In comparison, stream and riparian habitat in the analysis area is relatively undisturbed. Even though downstream aquatic habitats are highly modified, anadromous fish migrating in the Willamette River could make their way to and from the Rock Creek sub-basin. Map 10 shows the fish distribution in the watershed.

There are 4 main low-gradient tributaries to the mainstem of Rock Creek. They are:

- The North Fork Rock Creek is dammed to create the City of Corvallis reservoir. Above the reservoir, the stream is in a narrow valley.
- The South Fork Rock Creek has a weir and water intake with a minimally functional fish ladder. There is approximately 1.5 miles of low-gradient habitat above the weir.
- Middle Fork Rock Creek is a smaller stream with good gravels and cobbles. There is approximately 1.7 miles of low gradient habitat upstream from Road 3405. The culvert on Road 3405 is a barrier to fish migration. The culvert outlet has a drop of approximately 5 feet into a scoured pool.
- Griffith Creek also has a gravel/cobble streambed with approximately 2.6 miles of exceptionally good, low-gradient habitat above road 3405. A water intake and weir is located 0.7 miles upstream from road 3405, and has no fish passage. The culvert on Road 3405 is passable, however.

A stream survey was completed for the major Rock Creek tributaries on the Siuslaw National Forest (USFS 1994, USFS 1995) summarizing aquatic habitats for the fish bearing portions of NF Rock Creek, SF Rock Creek, MF Rock Creek, and Griffith Creek. The surveys are the source of the following stream characterizations.


Map 10
Fish Distribution and High Priority Fish Passage Barriers
Marys River Watershed Analysis
Legend
Streams
Potential Steelhead Habitat
Low Probability Steelhead
Medium Probability Steelhead
High Probability Steelhead
Priority Barriers
Barrier Type
Weir
Culverts
contour 80 feet
Roads
Marys River Watershed
Analysis Boundary
Ownership Boundaries
Townships
Ownership

North Fork Rock Creek

From its headwaters near the crest of Marys Peak to the confluence with Rock Creek, North Fork Rock Creek is entirely within the Corvallis Municipal Watershed. An earth-fill dam near the mouth of North Fork Rock Creek blocks upstream aquatic organism access to 2.1 miles of native cutthroat trout habitat. The 0.3 mile long reservoir formed by the dam was created by the Corvallis Municipal Watershed as a source of potable water. The North Fork dam and reservoir are on city of Corvallis property. The reservoir is drained by maintenance staff every 5 years to control aquatic vegetation. Cutthroat trout up to 21 inches have been observed when the reservoir is drained.

The National Forest boundary immediately upstream from the reservoir was the beginning of the North Fork Rock Creek stream survey. The surveyors recorded 13 tributaries to North Fork Rock Creek in their 2.1 mile assessment which stopped at the upstream extent of occupied native fish habitat. Aquatic habitat is summarized for similar stream segments termed reaches. The first stream reach extended for 1.2 miles above the reservoir. The bankfull stream channel is estimated at 19 to 24 feet wide with an average wetted channel width of 11 feet. Stream flow was estimated at 3 cubic feet per second (CFS) on July 27, 1995. The majority of stream flow originates from the North Slope of Marys Peak high up in the headwaters with 2.5 cfs from Chinitmini Creek and North Fork Rock Creek headwaters. The remaining 11 short, steep tributaries in this pinnate shaped drainage system contribute minor amounts of low summer flow and are not fish bearing. Water temperatures taken by hand held thermometer throughout the survey were cool recorded at 50ºF to 55ºF.

The mainstem North Fork has the majority of stream flow and a moderate stream gradient averaging 5 percent between River Mile 0.0 and 1.2 and 8 percent between River Mile 1.2 and 2.1. The stream is riffle-dominated with 21 percent pool and 79 percent riffle habitat. Large logs are common (96 pieces per mile in R1 and 117 pieces per mile in R2), often forming channel-spanning accumulations found throughout the survey length. They are important pool forming elements, which also create complex side channels and held valuable spawning gravel accumulations. Pools have an average residual depth of 1.2 feet. Few pools are over 2 feet deep with the deepest pool measuring 2.8 feet deep.

Low numbers of native cutthroat trout were observed throughout the survey. The fish are isolated above the North Fork Reservoir dam.

South Fork Rock Creek

The entire 3,339 acre South Fork Rock Creek sub-basin lies within the Corvallis Municipal Watershed. The city of Corvallis owns land from the mouth of South Fork to a water diversion dam at River Mile 0.4 immediately below the National Forest Boundary. The city of Corvallis owns a small portion of the extreme headwaters and the Bureau of Land Management also manages a small amount of the extreme headwaters in this National Forest dominated sub-basin.

The 7-foot high water diversion structure located below the Forest boundary at River Mile 0.4 can divert as much as 90 percent of the water at low flow for municipal use. South Fork Rock Creek habitat below the diversion dam can be described as simple with low amounts of large wood. Summer low stream flow can be reduced to 0.5 cubic feet per second at the diversion dam, greatly reducing aquatic habitat and wetted stream area. The two tributaries below the diversion dam contribute only minor amounts of flow and are not fish-bearing.

South Fork Rock Creek habitat above the diversion dam is a riffle dominated (19 percent pool) stream with a moderately steep gradient (average 6 percent to RM 1.5 and 11 percent from RM 1.5 to 3.8). Bankfull stream width is estimated 21 feet to 25 feet with the wetted stream width at low flow averaging 7 to 12 feet wide with a low summer flow of 5 cubic feet

per second. The stream substrate is boulder/cobble dominated with moderate amounts of large woody debris (75 pieces per mile between RM 1.5 and 3.8).

Sixteen tributaries were identified in the July 1995 stream survey. Two of the tributaries were fish bearing. At approximately South Fork Rock Creek RM 0.6 the fish-bearing tributary south of the Connection Creek drainage is fish bearing for approximately 0.7 miles. The road/stream crossing culvert at Road 3504 (3 foot diameter round pipe, 60 feet long at 5 percent gradient beneath a 30 foot road fill) is a partial migration barrier to most aquatic organisms. Bankfull width is estimated at 14 feet with a low summer flow of 1 cubic feet per second. Large woody debris is abundant (217 pieces per mile) for this riffle dominated stream (26 percent pool habitat). Stream gradient above the culvert is approximately 5 percent with gradient approaching 15 percent at the upstream extent of occupied cutthroat trout habitat.

The South Fork Rock Creek tributary located at River Mile 1.5 is identified as a fish bearing stream with low summer flow of 1.2 cubic feet per second. Bankfull stream width is estimated at 10 to 19 feet wide. Occupied fish habitat ends at a waterfall at approximately River Mile 0.1.

Middle Fork Rock Creek

The extreme headwaters and lower 1.3 miles of Middle Fork Rock Creek are on City of Corvallis land with Forest Service ownership in between. The entire 832 acre sub-basin is within the Corvallis Municipal Watershed.

The stream channel is best characterized as a riffle dominated (average 75 percent riffle) cobble/gravel stream with few boulders and little exposed bedrock. Stream gradient increases steadily upstream from 2 percent to 15 percent at the end of the stream survey at River Mile 2.2 and grows steeper into the headwaters. Summer low flow of 0.5 cubic feet per second was measured on July 29, 1995. Bankfull stream width was estimated at 15 feet to 19 feet wide with an average wetted stream width at low flow of 7 feet. Pools are typically small and shallow (less than 1.5 feet deep) with only two pools 3 feet deep. Low volumes of large wood (55 Pieces per mile) are found in Reach 1 possibly due to past timber harvest activity. Post-harvest riparian conifer are young in the lower reach. Large wood is more plentiful (118 pieces per mile) and large riparian conifers are abundant upstream but recruitment of large wood is expected to be slow due to a narrow valley bottom and typical winter high stream flows that are insufficient to move large wood in the stream channel. Five small tributaries enter the mainstem Middle Fork Rock Creek; none contribute significant stream flow and are not fish bearing.

Low numbers of cutthroat were observed in mainstem Middle Fork up to River Mile 1.9 where increasing stream gradient and low stream flow ended occupied fish habitat. The road/stream crossing near the mouth of Middle Fork Rock Creek at Road 3405 is a barrier to upstream movement of most aquatic organisms and isolates cutthroat trout reproduction in Middle Fork from spawning fish in the sub-basin. A water diversion dam at River Mile 0.9 is an upstream fish passage impediment. The 3 foot high concrete dam is set in a narrow bedrock gorge creating a falls on to bedrock. Cutthroat trout are isolated from downstream fish in the 1 mile of occupied fish habitat above this barrier.

Griffith Creek

Griffith Creek enters Rock Creek one mile above the Rock Creek confluence with Greasy Creek and is the first significant tributary to Rock Creek. The mouth of Griffith Creek is on private land. The City of Corvallis owns approximately 1 mile of the lower portion of Griffith Creek and has a water diversion structure at the upstream extent of city ownership at River Mile 1.2. This water diversion weir has no fish passage or fish ladder.

The portion of Griffith Creek below the National Forest boundary located on both private and City of Corvallis land has evidence of logging and road building as well as pasture land developed adjacent to the stream. Low stream flow is limited to less than 0.5 cubic feet per second below the water intake structure. Stream gradient is estimated at 5 percent with low amounts of large wood (21 pieces per mile) and few pools.

Native cutthroat trout are found from River Mile 1.2 to 4.0 throughout the National Forest portion of Griffith Creek and the City of Corvallis ownership near the headwaters.

Large woody debris is abundant (143 pieces per mile) in this small boulder/cobble dominated stream with an estimated 19 percent pool habitat. Stream gradient averages 8 percent in this reach. Bankfull stream width is estimated at 13 feet with an average wetted stream width at low flow of 8 feet. Native cutthroat trout in Griffith Creek above the water intake are isolated from other cutthroat in the Rock Creek stream system.

WATER QUALITY

The City of Corvallis municipal watershed enjoys exceptionally high water quality. There are no known sources of pollution, and the forest cover is relatively intact. The road system is relatively stable, with little input of sediment.

RECREATION

The bulk of recreation use on National Forest lands within the Mary River watershed is focused on non-motorized trail system use in the upper reaches of Rock Creek and the observation parking lot at the end of the paved segment of Marys Peak Road. Other recreation use includes wildflower and wildlife viewing, occasional hiking, mountain biking and walk in deer hunting associated with the summit area and the road system in the upper Rock Creek drainage. Motorized recreation use not associated with the primary trailhead access points is limited by road closures to protect the municipal watershed and sensitive habitats.

There are three trails currently in use: North Ridge, East Ridge and Tie. Northridge trail was established sometime prior to the early 1920's and remains on essentially the same alignment since establishment. East Ridge and Tie trails were established in the late 1970's and early 1980's. These trails were in part built by volunteers as connections for a proposed Corvallis-to-the-Sea trail. The Corvallis-to-the-Sea trail has been a recurring effort since the 1970's, with at least 4 different core groups promoting and supporting the trail concept. The concept is a trail system with an origin point in the Corvallis area and an end point on the central Oregon Coast. Several potential routes between a number of alternative end points have been proposed. Most of the proposals include segments skirting along the north boundary of the City of Corvallis municipal watershed. The current Corvallis-to-the-Sea Trail effort includes portions of the Old Peak Road which connect Highway 34 near Philomath to Woods Creek Road. There is a segment of intermittently maintained trail originating at the Old Peak and Woods Creek Road junction connecting to the trail head for North Ridge trail on Woods Creek road. The Forest supports the concept of the Corvallis-to-the-Sea Trail, if the Corvallis to the Sea Trail Partnership can gain the support of neighboring landowners, whose land would be used for a complete route, and perform trail maintenance.

The upper trailheads for the East Ridge and North Ridge are accessed from the observation parking lot. Vehicle access to the upper trail heads and observation parking lot is closed from December 1st to April 1st by a gate at Conner's Camp. Recreation use at this access point is heavy during the summer months. Both the observation lot and Conner's Camp parking areas have restroom facilities and picnic tables.

Lower East Ridge trailhead is accessed from the Conner's Camp parking area at mile point 5.6 on the Marys Peak Road. Access to the lower North Ridge trail head is on Woods Creek Road about 7.5 miles from highway 20. The Tie trail connects between East Ridge trail and North Ridge trail in the headwaters of Rock Creek and Chintimini Creek.

The observation parking lot provides scenic views toward the Willamette Valley and Cascade Mountains while an easy half mile walk on a gravel road to the summit of Marys Peak offers views of the Coast Range and Pacific Ocean. This parking lot also provides access to the open meadows and noble fir stands unique to the summit area of Marys Peak. The upper portion of Marys Peak from about the elevation of Conner's Camp to the summit is designated a Scenic Botanical Special Interest Area to protect these unique features.

There is also a small six unit camp ground near the observation parking lot open seasonally. This campground is just outside the analysis area in the upper reaches of the North Fork Alsea watershed; there is a loop trail associated with the campground and adjoining picnic area that includes options for accessing Marys Peak summit with a short connector or tying into the gravel road near the summit.

ROADS

There are about 67 miles of roads considered in this analysis. Eight miles of the Marys Peak Road lying outside the watershed boundary are included in the total, leaving about 59 miles within the Marys River watershed, nearly all within the City of Corvallis municipal watershed in Rock Creek. These roads are not open to public travel as a measure to protect the municipal watershed. About 54 miles of roads were constructed in early 1950's to provide a network of roads accessing widely scattered pockets of insect-killed conifer. The road system first focused on salvage logging of insect-killed timber then provided access for a second major salvage logging operation following the 1962 Columbus Day wind storm.

The road system that was in place by 1960 is nearly identical to the current system. About 5 miles of dead-end logging spurs have been constructed since 1960. The relatively minor additions were constructed to facilitate timber harvest on Forest Service and City of Corvallis lands through the 1980's. Construction techniques were uniform, state of the art and provided a fairly stable road system. These roads generally have not failed or been updated since the original construction other than minor repairs and replacing surfacing as needed.

Current road management priorities focus the limited maintenance and reconstruction funds on Key forest roads identified in the 2003 Forest Roads Analysis (USDA 2003). The Marys Peak Road, which is mostly outside the watershed, and the Woods Creek road are the only roads currently identified as Key roads. Both of those have been reconstructed since 1970. The older road system within the municipal watershed has received very little maintenance and no reconstruction since implementation of the Northwest Forest plan. The goals and objectives of the plan led to reduced timber harvest funding for roads. In 1994 most of the roads within the municipal watershed were heavily water-barred in recognition of the expected lack of maintenance. Roads 3405, 3406, 3408 and 3005 were not water barred. Road 3005 has been decommissioned, leaving only Roads 3405, 3406 and 3408 to receive very limited maintenance and periodic patrol by the City of Corvallis. The remaining roads have essentially been untouched since 1994; some are not currently drivable due to earth berm closures, fallen trees, brush, and in one case, a failed metal culvert and fill wash out. This lack of maintenance and access makes the need to stabilize roads not expected to be used for long time periods more urgent.